Jennifer E Kay

List of Publications by Year
in descending order

91	13,078	47006 47	43889 91
papers	citations	h-index	g-index

102	102	102	11564
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 2013, 94, 1339-1360.	3.3	1,848
2	The Community Earth System Model (CESM) Large Ensemble Project: A Community Resource for Studying Climate Change in the Presence of Internal Climate Variability. Bulletin of the American Meteorological Society, 2015, 96, 1333-1349.	3.3	1,723
3	The Arcticâ€™s rapidly shrinking sea ice cover: a research synthesis. Climatic Change, 2012, 110, 1005-1027.	3.6	1,277
4	The Community Earth System Model Version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001916.	3.8	935
5	CloudSat mission: Performance and early science after the first year of operation. Journal of Geophysical Research, 2008, 113, .	3.3	578
6	Insights from Earth system model initial-condition large ensembles and future prospects. Nature Climate Change, 2020, 10, 277-286.	18.8	436
7	Cloud influence on and response to seasonal Arctic sea ice loss. Journal of Geophysical Research, 2009, 114, .	3.3	342
8	The contribution of cloud and radiation anomalies to the 2007 Arctic sea ice extent minimum. Geophysical Research Letters, 2008, 35, .	4.0	290
9	Quantifying climate feedbacks in polar regions. Nature Communications, 2018, 9, 1919.	12.8	254
10	Exposing Global Cloud Biases in the Community Atmosphere Model (CAM) Using Satellite Observations and Their Corresponding Instrument Simulators. Journal of Climate, 2012, 25, 5190-5207.	3.2	251
11	Climate Change Projections in CESM1(CAM5) Compared to CCSM4. Journal of Climate, 2013, 26, 6287-6308.	3.2	243
12	Influence of internal variability on Arctic sea-ice trends. Nature Climate Change, 2015, 5, 86-89.	18.8	235
13	Interâ€annual to multiâ€decadal Arctic sea ice extent trends in a warming world. Geophysical Research Letters, 2011, 38, .	4.0	227
14	Global Climate Impacts of Fixing the Southern Ocean Shortwave Radiation Bias in the Community Earth System Model (CESM). Journal of Climate, 2016, 29, 4617-4636.	3.2	224
15	The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6. Geoscientific Model Development, 2017, 10, 359-384.	3.6	186
16	Ubiquitous lowâ€level liquidâ€containing Arctic clouds: New observations and climate model constraints from CALIPSOâ€GOCCP. Geophysical Research Letters, 2012, 39, .	4.0	168
17	Sensitivity to Glacial Forcing in the CCSM4. Journal of Climate, 2013, 26, 1901-1925.	3.2	153
18	Coupling between Arctic feedbacks and changes in poleward energy transport. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	147

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19	How predictable is the timing of a summer iceâ€free Arctic?. Geophysical Research Letters, 2016, 43, 9113-9120.	4.0	147
20	The Evolution of Climate Sensitivity and Climate Feedbacks in the Community Atmosphere Model. Journal of Climate, 2012, 25, 1453-1469.	3.2	140
21	Mapping the future expansion of Arctic openÂwater. Nature Climate Change, 2016, 6, 280-285.	18.8	137
22	The Influence of Local Feedbacks and Northward Heat Transport on the Equilibrium Arctic Climate Response to Increased Greenhouse Gas Forcing. Journal of Climate, 2012, 25, 5433-5450.	3.2	133
23	Evaluation of current and projected Antarctic precipitation in CMIP5 models. Climate Dynamics, 2017, 48, 225-239.	3.8	125
24	Tropospheric clouds in Antarctica. Reviews of Geophysics, 2012, 50, .	23.0	124
25	How much snow falls on the Antarctic ice sheet?. Cryosphere, 2014, 8, 1577-1587.	3.9	124
26	Recent Advances in Arctic Cloud and Climate Research. Current Climate Change Reports, 2016, 2, 159-169.	8.6	120
27	Observational constraints on Arctic Ocean clouds and radiative fluxes during the early 21st century. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7219-7236.	3.3	114
28	Accuracy and uncertainty of thermal-infrared remote sensing of stream temperatures at multiple spatial scales. Remote Sensing of Environment, 2006, 100, 427-440.	11.0	113
29	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 0, , 130204122247009.	3.3	103
30	Late-Twentieth-Century Simulation of Arctic Sea Ice and Ocean Properties in the CCSM4. Journal of Climate, 2012, 25, 1431-1452.	3.2	99
31	Evaluating and improving cloud phase in the Community Atmosphere Model version 5 using spaceborne lidar observations. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4162-4176.	3.3	98
32	The Arctic response to remote and local forcing of black carbon. Atmospheric Chemistry and Physics, 2013, 13, 211-224.	4.9	87
33	A Characterization of the Present-Day Arctic Atmosphere in CCSM4. Journal of Climate, 2012, 25, 2676-2695.	3.2	77
34	DART/CAM: An Ensemble Data Assimilation System for CESM Atmospheric Models. Journal of Climate, 2012, 25, 6304-6317.	3.2	69
35	The influence of extratropical cloud phase and amount feedbacks on climate sensitivity. Climate Dynamics, 2018, 50, 3097-3116.	3.8	68
36	Fasting season length sets temporal limits for global polar bear persistence. Nature Climate Change, 2020, 10, 732-738.	18.8	68

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37	Arctic Inversion Strength in Climate Models. Journal of Climate, 2011, 24, 4733-4740.	3.2	67
38	Initialâ€value predictability of Antarctic sea ice in the Community Climate System Model 3. Geophysical Research Letters, 2013, 40, 2121-2124.	4.0	64
39	Isolating the Liquid Cloud Response to Recent Arctic Sea Ice Variability Using Spaceborne Lidar Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 473-490.	3.3	63
40	The Boundary Layer Response to Recent Arctic Sea Ice Loss and Implications for High-Latitude Climate Feedbacks. Journal of Climate, 2011, 24, 428-447.	3.2	60
41	Processes controlling Southern Ocean shortwave climate feedbacks in CESM. Geophysical Research Letters, 2014, 41, 616-622.	4.0	58
42	Phoebe: Albedo Map and Photometric Properties. Icarus, 1999, 138, 249-258.	2.5	57
43	Evaluating lossy data compression on climate simulation data within a large ensemble. Geoscientific Model Development, 2016, 9, 4381-4403.	3.6	56
44	Cloud Response to Arctic Sea Ice Loss and Implications for Future Feedback in the CESM1 Climate Model. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1003-1020.	3.3	56
45	ACCURACY OF LAKE AND STREAM TEMPERATURES ESTIMATED FROM THERMAL INFRARED IMAGES. Journal of the American Water Resources Association, 2005, 41, 1161-1175.	2.4	53
46	Timescale analysis of aerosol sensitivity during homogeneous freezing and implications for upper tropospheric water vapor budgets. Geophysical Research Letters, 2008, 35, .	4.0	53
47	An underestimated negative cloud feedback from cloud lifetime changes. Nature Climate Change, 2021, 11, 508-513.	18.8	51
48	Contributions of Clouds, Surface Albedos, and Mixed-Phase Ice Nucleation Schemes to Arctic Radiation Biases in CAM5. Journal of Climate, 2014, 27, 5174-5197.	3.2	50
49	Scaleâ€Aware and Definitionâ€Aware Evaluation of Modeled Nearâ€Surface Precipitation Frequency Using CloudSat Observations. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4294-4309.	3.3	50
50	Thicker Clouds and Accelerated Arctic Sea Ice Decline: The Atmosphereâ€Sea Ice Interactions in Spring. Geophysical Research Letters, 2019, 46, 6980-6989.	4.0	47
51	ASSESSING SATELLITE-BASED AND AIRCRAFT-BASED THERMAL INFRARED REMOTE SENSING FOR MONITORING PACIFIC NORTHWEST RIVER TEMPERATURE. Journal of the American Water Resources Association, 2005, 41, 1149-1159.	2.4	43
52	The Curious Nature of the Hemispheric Symmetry of the Earthâ€™s Water and Energy Balances. Current Climate Change Reports, 2016, 2, 135-147.	8.6	41
53	How will precipitation change in extratropical cyclones as the planet warms? Insights from a large initial condition climate model ensemble. Climate Dynamics, 2017, 49, 1765-1781.	3.8	41
54	Processes regulating shortâ€lived species in the tropical tropopause layer. Journal of Geophysical Research, 2009, 114, .	3.3	40

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55	Comment on evidence for surface-initiated homogeneous nucleation. Atmospheric Chemistry and Physics, 2003, 3, 1439-1443.	4.9	39
56	True to Milankovitch: Glacial Inception in the New Community Climate System Model. Journal of Climate, 2012, 25, 2226-2239.	3.2	38
57	Direct atmosphere opacity observations from CALIPSO provide new constraints on cloudâ€radiation interactions. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1066-1085.	3.3	38
58	Can regional climate engineering save the summer Arctic sea ice?. Geophysical Research Letters, 2014, 41, 880-885.	4.0	32
59	The Role of Clouds in Modulating Global Aerosol Direct Radiative Effects in Spaceborne Active Observations and the Community Earth System Model. Journal of Climate, 2015, 28, 2986-3003.	3.2	30
60	Atmospheric drying as the main driver of dramatic glacier wastage in the southern Indian Ocean. Scientific Reports, 2016, 6, 32396.	3.3	29
61	Arctic and Antarctic Sea Ice Mean State in the Community Earth System Model Version 2 and the Influence of Atmospheric Chemistry. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015934.	2.6	29
62	Do Southern Ocean Cloud Feedbacks Matter for 21st Century Warming?. Geophysical Research Letters, 2017, 44, 12,447.	4.0	27
63	Microphysical and dynamical controls on cirrus cloud optical depth distributions. Journal of Geophysical Research, 2006, 111, .	3.3	26
64	LGM Paleoclimate Constraints Inform Cloud Parameterizations and Equilibrium Climate Sensitivity in CESM2. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	26
65	Quantifying the Influence of Cloud Radiative Feedbacks on Arctic Surface Warming Using Cloud Locking in an Earth System Model. Geophysical Research Letters, 2020, 47, e2020GL089207.	4.0	25
66	Evolution of the 2007â€“2008 Arctic sea ice cover and prospects for a new record in 2008. Geophysical Research Letters, 2008, 35, .	4.0	24
67	Early climate models successfully predicted global warming. Nature, 2020, 578, 45-46.	27.8	20
68	Greenland Clouds Observed in <i>CALIPSO</i>-GOCCP: Comparison with Ground-Based Summit Observations. Journal of Climate, 2017, 30, 6065-6083.	3.2	18
69	Spatial Decomposition of Climate Feedbacks in the Community Earth System Model. Journal of Climate, 2013, 26, 3544-3561.	3.2	17
70	Influence of the Atlantic Meridional Overturning Circulation on the Northern Hemisphere Surface Temperature Response to Radiative Forcing. Journal of Climate, 2018, 31, 9207-9224.	3.2	17
71	Arctic Clouds and Precipitation in the Community Earth System Model Version 2. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032521.	3.3	17
72	Processâ€Based Model Evaluation Using Surface Energy Budget Observations in Central Greenland. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4777-4796.	3.3	15

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73	Spatial relationships between snow contaminant content, grain size, and surface temperature from multispectral images of Mt. Rainier, Washington (USA). Remote Sensing of Environment, 2003, 86, 216-231.	11.0	14
74	The Polar Radiant Energy in the Far Infrared Experiment: A New Perspective on Polar Longwave Energy Exchanges. Bulletin of the American Meteorological Society, 2021, 102, E1431-E1449.	3.3	14
75	Present-day and future Greenland Ice Sheet precipitation frequency from CloudSat observations and the Community Earth System Model. Cryosphere, 2020, 14, 2253-2265.	3.9	14
76	Diagnosing shortwave cryosphere radiative effect and its 21st century evolution in CESM. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1356-1362.	3.3	13
77	How Well Are Clouds Simulated over Greenland in Climate Models? Consequences for the Surface Cloud Radiative Effect over the Ice Sheet. Journal of Climate, 2018, 31, 9293-9312.	3.2	12
78	An Ensemble Covariance Framework for Quantifying Forced Climate Variability and Its Time of Emergence. Journal of Climate, 2018, 31, 4117-4133.	3.2	11
79	The Combined Influence of Observed Southern Ocean Clouds and Sea Ice on Topâ€ofâ€Atmosphere Albedo. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4461-4475.	3.3	11
80	Quantifying student engagement in learning about climate change using galvanic hand sensors in a controlled educational setting. Climatic Change, 2020, 159, 17-36.	3.6	11
81	Quantifying the role of ocean coupling in Arctic amplification and sea-ice loss over the 21st century. Npj Climate and Atmospheric Science, 2021, 4, .	6.8	10
82	Less Surface Sea Ice Melt in the CESM2 Improves Arctic Sea Ice Simulation With Minimal Nonâ€Polar Climate Impacts. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	9
83	When Will Spaceborne Cloud Radar Detect Upward Shifts in Cloud Heights?. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7270-7285.	3.3	8
84	The climate response to increased cloud liquid water over the Arctic in CESM1: a sensitivity study of Wegenerâ€“Bergeronâ€“Findeisen process. Climate Dynamics, 2021, 56, 3373-3394.	3.8	8
85	Physical controls on orographic cirrus inhomogeneity. Atmospheric Chemistry and Physics, 2007, 7, 3771-3781.	4.9	7
86	Climate Sensitivity is Sensitive to Changes in Ocean Heat Transport. Journal of Climate, 2022, 35, 2653-2674.	3.2	6
87	The Balance Between Heterogeneous and Homogeneous Nucleation of Ice Clouds Using CAM5/CARMA. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
88	AMBASSADOR: Asteroid sample return mission to 7 Iris. Acta Astronautica, 1999, 45, 415-422.	3.2	3
89	Going with the floe: tracking CESM Large Ensemble sea ice in the Arctic provides context for ship-based observations. Cryosphere, 2020, 14, 1259-1271.	3.9	3
90	Improved clouds over Southern Ocean amplify Antarctic precipitation response to ozone depletion in an earth system model. Climate Dynamics, 2020, 55, 1665-1684.	3.8	3

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91	The Abisko Polar Prediction School. Bulletin of the American Meteorological Society, 2017, 98, 445-447.	3.3	2